

Bulkheading in Thurston County - Impacts on Forage Fish

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In 1984 Thurston Regional Planning Council (TRPC) initiated a permit tracking system for shoreline armoring in Thurston County. In 1992 TRPC began to document the rate of historical bulkheading and more accurately measure its extent countywide. In 2004 TRPC and its consultants - Herrera Environmental, completed a nearshore investigation funded by the SRFB to update the bulkhead records and better determine the impact of armoring on forage fish, such as surf smelt and sand lance. Paired beach transects were used to compare armored and unarmored shorelines. The beach profile of an armored shoreline was found to parallel an unarmored beach, but was generally a lower profile. Bulkheads and their fills encroached upon the upper beach by 5-20 feet which was a direct loss of forage fish spawning areas. The countywide impacts of this habitat loss was estimated at over 52 acres, or 0.4 of an acre per mile of shoreline. Also, stable accumulations of large wood debris were reduced from 79 to 3 percent along armored beaches. While questions about future sediment supply to forage fish beaches remain, it is clear that the presence of shoreline armoring has a direct and measurable adverse affect on forage fish spawning habitat.